

Patent Claims

1. Transponder which is mounted on a tire, wherein the transponder includes at least one transponder chip (5) as well as a transponder antenna and is embedded in a substrate (4);

the substrate (4) is connected via a connecting means to an inner side (3) of a tire; and,

the substrate (4) is releasably connected to the connecting means;

characterized in that,

a material strip (2) is fixedly connected to the inner side (3) of the tire only in at least one component region (6) of the connecting means.

2. Transponder of claim 1, characterized in that the material strip (2) is connected to the substrate (4) via a substrate opening (7).

3. Transponder of claim 1 or 2, characterized in that the substrate (4) has fixing means (8) projecting outwardly for attaching the material strip (2).

4. Transponder of one of the claims 1 to 3, characterized in that the material strip (2) has a material strip opening (9) with which the material strip (2) is fixed to the fixing means (8) of the substrate (4).

5. Transponder of one of the claims 1 to 4, characterized in that the substrate opening (7) has a rectangular shape and exhibits rounded or beveled edges.

6. Transponder of one of the claims 1 to 5, characterized in that the material strip (2) is made of a rubber product.

7. Transponder of one of the claims 1 to 6, characterized in that the substrate (4) lies exclusively on the material strip (2).

8. Transponder of one of the claims 1 to 7, characterized in that the substrate (4) has a rounded form on the side facing toward the inner side (3) of the tire.

9. Transponder of one of the claims 1 to 8, characterized in that the material strip (2) is applied to the inner side (3) of the tire in advance of tire vulcanization.

10. Transponder of one of the claims 1 to 9, characterized in that, after tire vulcanization, the material strip (2) is applied to the inner side (3) of the completed tire via a cold vulcanization.

11. Tire having a transponder with the transponder including at least one transponder chip (5) as well as a transponder antenna and is embedded in a substrate (4);

the substrate (4) is connected via a connecting means to an inner side (3) of a tire; and,

the substrate (4) is releasably connected to the connecting means;

characterized in that,

a material strip (2) is fixedly connected to the inner side (3) of the tire only in at least one component region (6) of

the connecting means.

12. Tire of claim 11, characterized in that the transponder is configured in accordance with one of the claims 2 to 10.